



T<sub>C</sub> = 25

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V <sub>DS</sub>	40	V
Gate-Source Voltage	V <sub>GS</sub>	±20	V
Continuous Drain Current	I <sub>D@TC=25°C</sub>	100	A
	I <sub>D@TC=75°C</sub>	76	A
	I <sub>D@TC=100°C</sub>	63	A
Pulsed Drain Current ①	I <sub>DM</sub>	300	A
Total Power 85 5(D)-4ijsiatism			

**Thermal resistance**

Parameter	Symbol	Min.	Typ.	Max.	Unit
Thermal resistance, junction - case	$R_{thJC}$	-	-	1.1	$^{\circ}C/W$
Thermal resistance, junction - ambient	$R_{thJA}$	-	-	60	$^{\circ}C/W$
Soldering temperature, wave soldering for 10s	$T_{sold}$	-	-	265	$^{\circ}C$

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Drain-Source Breakdown Voltage	$BV_{DSS}$	$V_{GS}=0V, I_D=250\mu A$	40			V
Gate Threshold Voltage	$V_{GS(TH)}$	$V_{GS}=V_{DS}, I_D=250\mu A$	1.2		2.5	V
Drain-Source Leakage Current	$I_{DSS}$	$V_{DS}=40V, V_{GS}=0V$			1.0	$\mu A$
Gate- Source Leakage Current	$I_{GSS}$	$V_{GS}=\pm 20V, V_{DS}=0V$			$\pm 100$	nA
Static Drain-source On Resistance		$V_{GS}=10V, I_D=24A$		3.1	4	$m\Omega$
		$V_{GS}=4.5V, I_D=12A$		4.5	5.8	$m\Omega$
Forward Trans conductance	$g_{FS}$	$V_{DS}=25V, I_D=10A$		16		S
Source-drain voltage	$V_{SD}$	$I_S=24A$			1.28	V

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Input capacitance	$C_{iss}$	$f = 1MHz$				



Fig.1 Power Dissipation

Fig.2 Typical output Characteristics

Fig.3 Threshold Voltage V.S Junction Temperature    Fig.4 Resistance V.S Drain Current

Fig.7 Switching Time Measurement Circuit

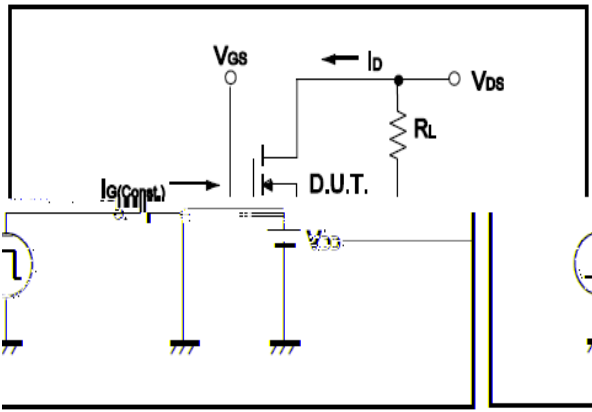


Fig.8 Gate Charge Waveform

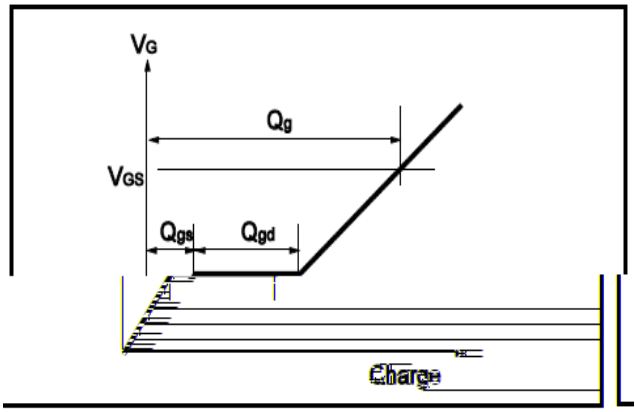


Fig.9 Switching Time Measurement Circuit

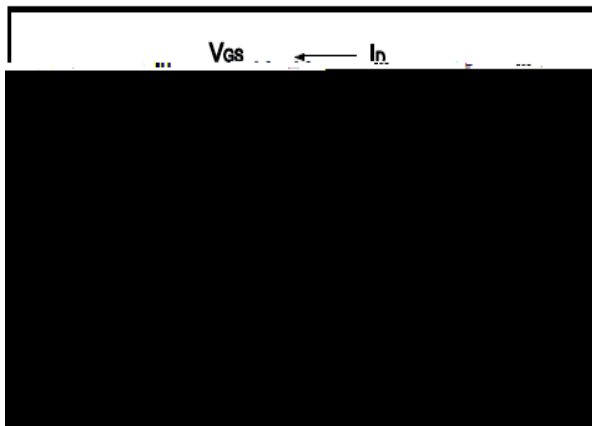


Fig.10 Gate Charge Waveform

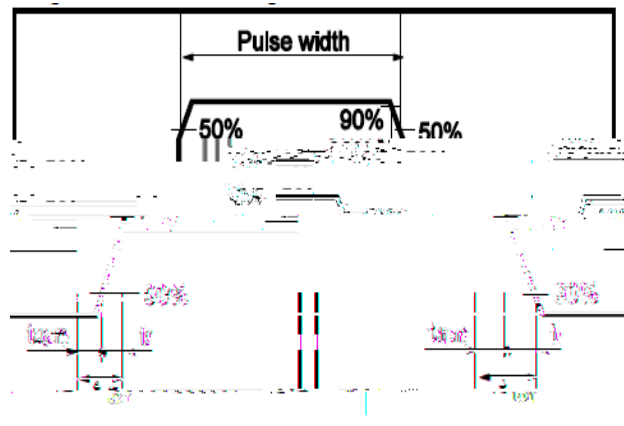


Fig.11 Avalanche Measurement Circuit

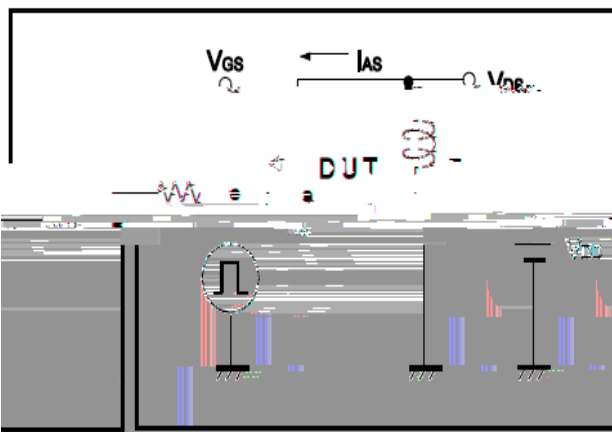


Fig.12 Avalanche Waveform

